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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,920	01/10/2006	Anthony Haynes	608-474	5439
23117 7590 03/17/2010 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203				
EXAMINER TAKEUCHI, YOSHITOSHI				
ART UNIT		PAPER NUMBER		
1793				
MAIL DATE		DELIVERY MODE		
03/17/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/563,920

**Applicant(s)**

HAYNES ET AL.

**Examiner**

YOSHITOSHI TAKEUCHI

**Art Unit**

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 December 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 25-44 and 46-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 25-44 and 46-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 25- 44 and 46-50 are presented for examination, wherein claim 25 is amended. Claims 1-24 and 45 are cancelled. A new rejection ground is applied to claims 47-50 as follows.

***Claim Rejections - 35 USC § 102***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 25-26, 43-44, 46 and 50 are rejected under 35 U.S.C. 102(b) as anticipated by Muskett (US 6,255,527).
- a. Muskett is applied to claims **25-26, 43-44** and **46** for the same reasons as provided in the prior action. The amendment of the transition phrase from “by” to “comprising” does not affect the substance of the prior rejections.
- b. Regarding claim **50**, Muskett teaches the method of claim 25, wherein the method is continuous (abstract).
4. Claims 25-26, 43-44 and 46 are rejected under 35 U.S.C. 102(b) as anticipated by Watson et al (US 5,831,120).

Watson is applied to claims **25-26, 43-44** and **46** for the same reasons as provided in the prior action. The amendment of the transition phrase from “by” to “comprising” does not affect the substance of the prior rejections.

***Claim Rejections - 35 USC § 103***

5. Claims 27-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over either [Muskett (US 6,255,527) or Watson et al (US 5,831,120)] in view of Vanderpool et al (US 4,629,809).

Muskett or Watson in view of Vanderpool is applied to claims 27-37 for the same reasons as provided in the prior action.

6. Claims 38-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over either [Muskett (US 6,255,527) or Watson et al (US 5,831,120)] in view of Tokumoto et al (US 5,166,419).

Muskett or Watson in view of Tokumoto is applied to claims 38-42 for the same reasons as provided in the prior Office action.

6. Claims 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muskett (US 6,255,527).

Regarding claims 47-49, Muskett teaches the method of claim 25 and 46, wherein Muskett teaches the methyl acetate concentration is less than about 6% w/w, which is within the instantly claimed range (2:7) and water concentration of 0.1-30 wt%, which is within the instantly claimed range (4:15-16). Where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. In re Wertheim, 541 F.2d 257 (CCPA 1976). See MPEP § 2144.05.

7. Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watson et al (US 5,831,120).

Regarding claim 47, Watson teaches methyl acetate concentration of up to 5 wt%, which is within the instantly claimed range (6:50-51), rendering the instant claim obvious for the same reason provided *supra*.

***Response to Arguments***

8. Applicant's arguments filed September 17, 2009 have been fully considered but they are not persuasive.

9. Regarding the 35 U.S.C. § 102(b) rejections of claims 25-26, 43-44 and 46, the applicant argues that neither Muskett nor Watson teach a non-hydrohalogenoic acid promoter, wherein the non-hydrohalogenoic acid acts as a promoter and not as a product.

In response, claim 25 only requires the presence of a non-hydrohalogenoic acid, where the formation of the non-hydrohalogenoic acid as a reaction product is sufficient to meet the instant invention as claimed.

10. Regarding the 35 U.S.C. § 103(a) rejections of claims 27-29 and 32-42, the applicant makes the following arguments:

- a. First, the applicant argues neither Muskett nor Watson teach the use of a non-hydrohalogenoic acid as an iridium catalyst promoter, as required by the presently claimed process.

In response, the examiner respectfully refers to the response *supra*.

- b. Second, the applicant argues Vanderpool discloses that the use of iodides is disadvantageous and teaches away from the present invention.

In response, Vanderpool merely states that iodide promoters are corrosive and results in added expense. (3:4-6). It does not teach away from the instant invention.

11. Regarding the 35 U.S.C. § 103(a) rejections of claims 27-29 and 32-42, the applicant argues Tokumoto relates to an entirely different reaction, therefore a person of ordinary skill in the art would not have been motivated to consult Tokumoto.

In response, Tokumoto refers to an iridium catalyst system 7:33-35) to aid in carbonylation reactions (9:23). The reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by applicant. See, e.g., In re Kahn, 441 F.3d 977, 987 (Fed. Cir. 2006). See also MPEP § 2144(IV).

Tokumoto teaches an iridium carbonylation catalyst system with methyl iodide (7:32-34, 9:23 and 10:31-33) using phosphoric acid (5: 33-34) and also heteropolyacids, such as molybdophosphoric acid and tungstosilicic acid as a carbonylation promoter (5:39-40).

As a result, it would have been obvious to a person of ordinary skill at the time of the invention to use the heteropolyacids molybdophosphoric acid or tungstosilicic acid of Tokumoto in the carbonylation catalyst system of either Muskett or alternatively Watson in order to form acetic acid, since Tokumoto teaches such heteropolyacids promote an iridium catalyzed carbonylation reaction.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOSHITOSHI TAKEUCHI whose telephone number is (571) 270-5828. The examiner can normally be reached on Monday-Thursday 9:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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1793

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